Application to Modify the Title V Air Permit
McKee Run Generating Station
Facility ID Number: 1000100002
Permit Number: AQM-001/00002 (Renewal 3)

January, 2018

SUBMITTED TO:

State of Delaware - DNREC
Division of Air Quality
State Street Commons
100 W. Water Street, Suite 6A
Dover, DE 19904
ATTN: Division Director

SUBMITTED BY:

City of Dover McKee Run Generating Station
880 Buttner Place
Dover, Delaware 19904

PREPARED BY:

NAES

Energy People Making Energy Facilities Work - Better
13 Reads Way Suite 100
New Castle, DE 19720

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1.0 INTRODUCTION

The McKee Run Generation (MRGS) is a power generation facility located in Dover, Delaware and which operates under Delaware's Federal Title V Operating Permit Number AQM-001/00002 (Renewal 3). The facility is owned by the City of Dover and is operated and maintained by NAES as a contracted service provider.

MRGS, identified by Facility ID Number: 1000100002, is a peaker power plant consisting of two 225 MMBtu/hr Babcock & Wilcox Boilers (Boilers 1 and 2) and Boiler 3, a Riley Stoker Steam Generation Boiler rated at 1,180 MMBtu/hr. The plant is capable of generating approximately 102 MW of electricity. Although the operation of Boilers 1 and 2 has been discontinued and was so noted in the recently submitted renewal application, the three boilers are currently permitted to fire pipeline natural gas (PNG) as the primary fuel and distillate ultra-low sulfur distillate oil (ULSD) as a backup fuel. Emissions controls include low NOx burners in Boiler 3 and ULSD for sulfur dioxides.

1.1 Permit Application Preparer

This Permit Application was prepared by Ms. Mary Turner of NAES Corporation. If there are technical questions regarding this application, please contact:

Name: Ms. Mary S. Turner
Company: NAES Corporation
Telephone: (302) 356-4759
E-Mail: Mary.Turner@naes.com

2.0 APPLICATION DESCRIPTION

This permit application is being submitted to modify the operational limits for fuel oil use specified in the Title V permit for the facility and update the Federal and State of Delaware underlying applicable requirements for this modification. The current Title V permit expires April 20, 2018. The renewal application was submitted in a timely manner to the Department on April 20, 2017 as mandated by 7 DE Admin. Code 1130 Section 7.3.2 and permit Condition 2(l)(2).

MRGS would like to propose alternative operating scenarios (AOS) for the plant's potential increased use of ultra-low sulfur distillate (ULSD) oil in Boiler 3 during periods of pipeline natural gas (PNG) curtailments and gas supply interruptions. If the current PNG market conditions are prolonged, the plant will be forced into a virtual shutdown without language allowing additional operational flexibility in the permit. While MRGS would prefer to combust PNG to meet electricity demands, the recent PNG shortage for this plant has resulted in the facility's need to address the potential for increased ULSD oil usage in order to continue to operate as dispatched.

The EPA has added a number of operational flexibility provisions to the Subpart UUUUU—National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (Utility MATS) since it was first promulgated. These new provisions were not available for consideration during the previous permit renewal, but now provide mechanisms to readily change from one Utility MATS subcategory to another. Therefore, MRGS requests these mechanisms be incorporated into the Title V permit through the operational flexibility provisions in Sections 6.8 and 6.1.10 of 7 DE Admin Code 1130.

3.0 EMISSIONS REVIEWS

The Plant is in Kent County, which EPA designated as being in attainment of all air quality standards for every criteria pollutant. However, the county is within an area that has also been identified as an Ozone Transport Region, so it is treated as a moderate ozone nonattainment area. MRGS is therefore a major NOx source under both the Prevention of Significant Deterioration (PSD) and Non-Attainment New Source Review (NANSR) Permitting programs. Although its actual emissions are much lower, the facility's permitted potential emissions exceed the major source thresholds for CO, SO2, and CO2. MRGS is a minor source of particulate emissions as described in Table 1 below.

COD McKee Run Major Source Determination
Table 1

	Heat-Rate (mmBtu/hr)	NOx (tons)	CO (tons)	SO2 (tons)	CO2 (tons)	PM2.5 (tons)	PM10 (tons)	VOC (tons)	NOx (tons)
Facility Potential	1,180	244.00	101.75	400	656,888	51.75	51.75	23.15	244.00
Major Source Threshold	250	100	100	100	100,000	100	100	25	25
PSD Determination	100 TPY Threshold	Major	Major	Major	Major	Minor	Minor		
NSR Determination								Minor	Major

As a major source for NOx, this permit application must address the applicability of both the Federal PSD and the NANSR programs as well as the Delaware air permitting regulations for sources in ozone transport areas.

3.1 Past Actual to Projected Actual Analysis

MRSG is not requesting an increase to any permitted emissions limit related to the Utility MATS oil use AOS. However, the past actual to projected actual analysis is included to ensure a completeness determination for this application as required by Section 6.1.1.3 of 7 DE Admin Code 1130 when modifying a permit. Since MRGS operated primarily as a fuel oil fired prior to 2013, the analysis demonstrates the projected emissions for each applicable subcategory of

Utility MATS in the proposed AOS could have been accommodated in the past, considering the demand growth exclusion.

The baseline actual emissions were based upon the annual average of CEMs data for NOx, SO2, and CO2 as well as VOC and particulate stack test results for the 24-month period between January 2005 and December 2006. This period was selected because these years are more representative of operations while combusting fuel oil and more indicative of the operational flexibility required by a peaker energy plant. Although this period is beyond the 5-year period typically allowed, the permitting regulations at 40 CFR § 52.21(b)(48) provides for a different baseline period as copied below.

(b)(48)(i) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The Administrator shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

The projected actual emissions were estimated based upon the Utility MATS heat input threshold for a limited-use liquid oil-fired EGU. The demand growth operating level and emissions were estimated based upon January 2005 data since boiler operations were maximized during this period, thereby demonstrating that MRGS is already capable of accommodating the production of electricity beyond the proposed level.

The past actual to projected actual emissions analysis demonstrated no significant emissions increases for Boiler 3 emissions at the oil heat input levels of a limited-use liquid oil-fired EGU as well as that of a liquid oil-fired EGU when demand growth is considered. There were also no emissions increases for contemporaneous projects. Therefore, there is also no significant net emissions increases. The analyses is presented below in Tables 2:

COD McKee Run
Limited Use Liquid Oil-Fired EGU Projected Actual to Baseline Actual Emissions Analysis
Table 2

	Op-Hours	Gross Load (MWatts)	Heat-Rate (mmBtu)	NOx Mass (tons)	SO2 Mass (tons)	VOC Mass (tons)	PM10 Mass (tons)	PM2.5 Mass (tons)	CO Mass (tons)	CO2 Mass (tons)	% Heat Input from Oil	% HI Capacity	Utility MATS Implications
A. Unit 3 Projected With Oil Only at Max Load	701	72,182	826,944	92.9	5.0	2.3	6.9	4.7	15.1	67,126		8.0%	Limited Use Oil-fired EGU
B. Unit 3 Projected With PNG Only at Max Load	1,108	114,077	1,306,898	151.1	0.2	3.4	4.7	7.4	23.8	106,085			
C. Total Projected Actuals Unit 3 (C = A + B)	1,808	186,259	2,133,842	244.0	5.1	5.7	11.6	12.0	38.8	173,210	38.8%	8.0%	Limited Use Oil-fired EGU
D. Basline Actual Emissions (2005-2006)	1,914	75,048	793,420	147.9	290.5	2.1	5.8	4.0	16.3	147,728	88.8%	10.8%	
E. Project Increases (E = C - D)	-106	111,211	1,340,422	96.1	-285.4	3.6	5.8	8.0	22.5	25,482			
H. Highest Average Monthly Operating Level	505.0	27,511	259,597	58.8	108.8	0.7	2.2	1.5	4.7	44,339			
I. Annualized Highest Average Operating Level (I = H/31 X 365)	5,946	323,920	3,056,539	692.3	1281.0	8.5	25.6	17.2	55.6	522,051			
J. Permit Limit Adjusted Annual Highest Operating Level	5,946	323,920	1,077,237	244.0	400.0	8.5	25.6	17.2	55.6	522,051			
K. Demand Growth Exclusion (K = J - D)	4,032	248,872	283,817	96.1	109.5	6.4	19.8	13.2	39.3	374,323			
P. Project Increases Less Demand Growth (P = E - K)	-4,138	-137,661	1,056,605	0.0	-394.9	-2.8	-14.0	-5.2	-16.8	-348,841			
Sig NSR Threshold				25.0		25.0							
NSR LAER & Offsets Reqd?				N/A		N/A							
Sig PSD Threshold				40.0	40.0	40.0	15.0	10.0	100.0	75,000			
PSD BACT Reqd?				N/A	N/A	N/A	N/A	N/A	N/A	N/A			

4.0 REGULATORY REVIEW

The most recent Title V permit for MRGS limited the use of distillate oil to that of a backup fuel during those periods of gas curtailments and interruptions and as a percent of total heat input to ensure the facility operated beneath the thresholds established for oil-fired EGUs as defined by 40 CFR 63 Subpart UUUUU National Emission Standards For Hazardous Air Pollutants (NESHAP): Coal- And Oil-Fired Electric Utility Steam Generating Units Standards for Coal- and Oil-Fired Electric Utility Steam Generating Units (Utility MATS). Although this is generally still the intended mode of operation, the plant must protect for more constraints in the natural gas available to electric utilities in this market area and the subsequent possibility for additional periods requiring distillate oil use.

4.1 PSD and NANSR

As mentioned above, the potential emissions from the facility are above the major source thresholds for NOx under both the PSD and NANSR Permitting programs. MRGS's current permit has previously established permit conditions, which serve to limit the NOx, SO2, PM10, and VOC emissions from the three electric steam generating units collectively. These limits and all others in the permit except the distillate oil throughput ratio limits in Condition 3 - Table 1(b)(1)(iv)(B), (b)(2)(iv)(B), and (b)(5)(iv)(B) will be maintained while operating under the proposed AOS. The use of cleaner distillate oils than those previously used, and the alternative operating scenario allowed by DE regulations afford the plant the opportunity to pursue operations in the current market without any detriment to air quality.

In addition, the increased use of a fuel already permitted is excluded from the definition of a Major Modification in 40 CFR §52.21 (b)(2)(iii)(e)(2) and reiterated by 7 DE Admin Code 1125 Requirements For Preconstruction Review, which states the following:

A physical change or change in the method of operation shall not include:

- ***Use of an alternative fuel or raw material by reason of an order under sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;***

- ***Use of an alternative fuel or raw material by a stationary source which:***

- ***The source is approved to use under any previously issued PSD permit or under 3.0 of this regulation;***

Since # 6 fuel oil was previously the primary fuel and the use of cleaner distillate oils were approved in the 2008 PSD permit and subsequent Title V permits, the AOS would allow the facility to increase the use of the ULSD oils to the extent possible within the already established permit limits. Therefore, the addition of the proposed AOS in this application does not meet the definition of modification under the Federal NSR or PSD regulations.

As such, this permit application seeks to avail itself of the operational flexibility provisions of Section 6.8 of 7 DE Admin Code 1130 to incorporate the AOS to address the potential need to increase the use of ULSD oil at the plant. Since natural gas is still the preferred fuel at MRGS, the AOS and the applicable requirements will apply only when the prescribed Utility MATS thresholds are exceeded.

Sections 6.8 and 6.1.10 of 7 DE Admin Code 1130 states:

6.8 Operational Flexibility. Each permit issued under this regulation shall provide that a permitted facility is expressly authorized to make a section 502(b)(10) (of the Act) change within the facility without a permit revision, if the change is not a modification under any provision of Title I of the Act or the State Implementation Plan (SIP), does not involve a change in compliance schedule dates, and the change does not result in a level of emissions exceeding the emissions allowable under the permit, whether expressed therein as a rate of emissions or in terms of total emissions.

6.1.10 Operating Scenarios. The permit shall include terms and conditions applicable to all operating scenarios described in the permit application and eligible for approval under applicable requirements. The permit shall authorize the permittee to make changes among operating scenarios authorized in the permit without notice, but shall require the permittee contemporaneously with making a change from one operating scenario to another to record in a log at the permitted facility the scenario under which it is operating. Each operating scenario shall meet all applicable requirements, and the requirements of this regulation.

4.2 Other Air Regulations

The following presents a discussion of the facility applicability to certain regulatory requirements as a result of the proposed AOS:

1. Title V (7 DE Admin Code 1130): MRGS is an existing permitted Title V facility. The facility is proposing to incorporate the proposed AOS. Section 6.1.13 of 7 DE Admin Code 1130 states the following:

6.1.1.3 If an applicable implementation plan or an applicable requirement allows a source to comply through an alternative emission limit or means of compliance, a source may request that such an alternative limit or means of compliance be specified in its permit. Such an alternative emission limit or means of compliance shall be included in a source's permit upon a showing that it is quantifiable, accountable, enforceable, and based on replicable procedures. The source shall propose permit terms and conditions to satisfy these requirements in its application.

The detailed permit terms and conditions MRGS proposes can be found below in Section 5 of this application.

2. New Source Performance Standards (NSPS) The facility is an existing source but is not subject to any NSPS, the applicability of which will not be impacted by this application because use of fuel oil is already permitted at the facility. The General Provisions of 40 CFR 60 Subpart A specifically exclude fuel oil use from the definition of modification according to section (e)(4) of §60.14, which reads as follows:

> (e) The following shall not, by themselves, be considered modifications under this part:
>
> (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change.

3. Maximum Available Control Technology (MACT) and National Emission Standards For Hazardous Air Pollutants (NESHAP) Units (40 CFR 63 Subpart): The existing facility is not and will not become a major source of HAPs from the increased use of ULSD fuel. During the most recent permit renewal, MRGS accepted limits on the heat input from fuel oil to ensure the boiler would meet the definition of a natural gas boiler not subject to Subpart UUUUU Utility MATS. These permit conditions are found in several areas of Condition 3 - Table 1 and must now be amended to ensure the facility can continue to supply electricity to the grid when demand dictates and PNG is not available. MRGS will not become subject to any other MACT standard because of this modification. The proposed Utility MATS requirements will be addressed in the following section of this application.

5.0 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: COAL- AND OIL-FIRED ELECTRIC UTILITY STEAM GENERATING UNITS (UTILITY MATS) REQUIREMENTS

MRGS proposes the following AOS to address the potential need to burn additional ULSD oil when PNG is not available. Depending upon the severity and length of the gas shortage, the facility may become subject to varying levels of 40 CFR 63 Subpart UUUUU--National Emission Standards For Hazardous Air Pollutants: Coal- And Oil-Fired Electric Utility Steam Generating Units (Utility MATS) requirements. To address this possibility, MRGS is proposing amendments

to its permit to include AOS for the additional triggers and the associated Utility MATS requirements.

As required by §63.10000(h)(2), this application hereby serves as the required advanced notification that MRGS may become subject to the Utility MATS regulation as a limited use oil-fired or oil-fired electric utility steam generating unit (EGU) as defined in §63.10042 of this Subpart upon exceeding the thresholds established in the rule.

Since the Title V renewal permit was issued in 2013, there have been several revisions to the Utility MATS regulation. 40 CFR §63.9983(b) still declares natural gas EGUs are not subject to this subpart but the definitions of "Fossil fuel-fired," "Limited-use liquid oil-fired subcategory," and "Natural gas-fired" and "Oil-fired electric utility steam generating unit" in §63.10042 were further revised to clarify the considerations for determining the MATS applicability. The general requirements in 40 CFR §63.10000 have also been revised to include the following provisions for sources that become subject to Utility MATS after the compliance date:

(h)(1) If you own or operate an EGU that does not meet the definition of an EGU subject to this subpart on April 16, 2015, and you commence or recommence operations that cause you to meet the definition of an EGU subject to this subpart, you are subject to the provisions of this subpart, including, but not limited to, the emission limitations and the monitoring requirements, as of the first day you meet the definition of an EGU subject to this subpart. You must complete all initial compliance demonstrations for this subpart applicable to your EGU within 180 days after you commence or recommence operations that cause you to meet the definition of an EGU subject to this subpart.

(h)(2) You must provide 30 days prior notice of the date you intend to commence or recommence operations that cause you to meet the definition of an EGU subject to this subpart. The notification must identify:

(h)(2)(i) The name of the owner or operator of the EGU, the location of the facility, the unit(s) that will commence or recommence operations that will cause the unit(s) to meet the definition of an EGU subject to this subpart, and the date of the notice;

(h)(2)(ii) The 40 CFR Part 60, Part 62, or Part 63 subpart and subcategory currently applicable to your unit(s), and the subcategory of this subpart that will be applicable after you commence or recommence operation that will cause the unit(s) to meet the definition of an EGU subject to this subpart;

(h)(2)(iii) The date on which you became subject to the currently applicable emission limits;

(h)(2)(iv) The date upon which you will commence or recommence operations that will cause your unit to meet the definition of an EGU subject to this subpart, consistent with paragraph (f) of this section.

(i)(1) If you own or operate an EGU subject to this subpart and cease to operate in a manner that causes your unit to meet the definition of an EGU subject to this subpart, you must be in compliance with any newly applicable section 112 or 129 standards on the date you selected consistent with paragraphs (g) and (n) of this section.

(i)(2) You must provide 30 days prior notice of the date your EGU will cease complying with this subpart. The notification must identify:

(i)(2)(i) The name of the owner or operator of the EGU(s), the location of the facility, the EGU(s) that will cease complying with this subpart, and the date of the notice;

(i)(2)(ii) The currently applicable subcategory under this subpart, and any 40 CFR Part 60, Part 62, or Part 63 subpart and subcategory that will be applicable after you cease complying with this subpart;

(i)(2)(iii) The date on which you became subject to this subpart;

(i)(2)(iv) The date upon which you will cease complying with this subpart, consistent with paragraph (g) of this section.

These new provisions were not promulgated or available for consideration during the previous permit renewal, but now provide mechanisms to readily change from one Utility MATS subcategory to another. Therefore, MRGS requests these mechanisms be incorporated into the Title V permit through the operational flexibility provisions in Sections 6.8 and 6.1.10 of 7 DE Admin Code 1130.

Boiler 3 currently meets the definition of a natural gas-fired EGU as defined by the Utility MATS. As discussed above, it is reasonably anticipated that the facility could experience natural gas shortages. Since the Utility MATS rule does not exclude oil use during natural gas curtailment or interruptions from the applicability determination, it becomes necessary to make this request to include an AOS in conditions Condition 3 - Table 1 (b)(1), (b)(2), and (b)(5) to address the thresholds and requirements applicable if and when Boiler 3 does become subject to Subpart UUUUU. For liquid oil-fired sources subject to the full impact of Utility MATS, the rule imposes emission limits, work practices including tune-ups every 36 months, and quarterly performance testing or continuous monitoring requirements for filterable particulate matter (FPM), Hydrogen chloride (HCl), and Hydrogen fluoride (HF). However, in developing the Utility MATS revisions, the EPA recognized that peaker plants like MRGS that are capable of burning oil during PNG interruptions needed additional relief in those periods when dispatched and gas availability is more severely limited. Therefore, the EPA created a subcategory for these limited-

use liquid oil-fired EGUs that might need the flexibility to operate on oil alone. The definition of a limited-use liquid oil-fired EGU is copied below:

Limited-use liquid oil-fired subcategory means an oil-fired electric utility steam generating unit with an annual capacity factor when burning oil of less than 8 percent of its maximum or nameplate heat input, whichever is greater, averaged over a 24- month block contiguous period commencing on the first of the month following the compliance date specified in §63.9984.

The requirements for limited-use liquid oil-fired EGUs are not as onerous as those for other oil-fired subcategories and include only the tune-up requirements. To address the levels of fuel oil use and the thresholds associated with both natural gas-fired and oil-fired EGUs, MRGS proposes amendments to the specific Operational Limitations and Compliance Methods in permit Condition 3 - Table 1 (b)(1), (b)(2), and (b)(5). Specifically, the Operational Limits in permit conditions (b)(1)(iv)(B), (b)(2)(iv)(B), and (b)(5)(iv)(B) should be amended to include the following AOS and read as follows:

A. The boiler shall combust only: [Reference 7 DE Admin. Code 1130 Section 6(a)(1) and 6(b)(1), dated 12/11/00 and Permit APC-81/1121-C-A(3) Condition 3.1.1 and 3.1.3]

1) Natural gas or

2) No.2 fuel oil with a sulfur content less than or equal to ~~0.05~~ 0.0015 percent by weight as a backup/emergency fuel. Backup/emergency fuel means that a unit burns liquid fuel only during periods of **gas interruptions**, gas curtailment, gas supply emergencies, or periodic testing on liquid fuel.

B. ~~By April 16, 2015, the~~
1) When operating as a natural gas-fired boiler as defined by §63.10042, the boiler shall not combust oil for more than 10.0 percent of the average annual heat input during any 3 calendar years or for more than 15.0 percent of the annual heat input during any calendar year **Or**

2) When operating as a limited-use liquid oil-fired EGU as defined by §63.10042, the average heat input from oil must exceed 15 percent during any calendar year or 10 percent of the average annual heat input during any 3 calendar years and the boiler must not combust oil for more than 826,944 MMBTU/yr (8 percent of Boiler 3 name-plate heat input) averaged over a 24-month block contiguous period Or

(40 CFR §63.9983; §63.9984; §63.10000 (c)(2)(iv), (h)(1) and (2); §63.10032; §63.10042; Tables 2,3,4,5, and 6)

The requirements for limited-use liquid oil-fired EGUs include only the tune-up requirements. The Compliance Methods in permit Conditions 3 - Table 1(b)(1)(v), (b)(2)(v), and (b)(5)(v) should be amended to include the following:

D.
1) Complete tune-up necessary to meet work practice requirements in §63.10021(e) and Table 3 of 40 CFR §63 Subpart UUUUU within 180 days of becoming subject to this subpart per Condition 3 - Table 1 (b)(1)(iv)(B)(2), (b)(2)(iv)(B)(2), and (b)(5)(iv)(B)(2) or providing proof of a tune up conducted within the 36 months prior to becoming subject and within every 36 months thereafter.

The monitoring requirements in permit Conditions 3 - Table 1 (b)(1)(vi), (b)(2)(vi), and (b)(5)(vi) should be amended to include the following:

F. Calculate monthly the percent heat input from oil on an annual and 3 year rolling basis.

The reporting requirements in permit Condition 3 - Table 1 (b)(1)(x), (b)(2)(x), and (b)(5)(x) must also be amended to include the following:

~~None in~~ **1) In** addition to that required by Conditions 2(a), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit~~.~~**, the Initial Notification must be submitted within 120 days of becoming subject to new requirements according to §63.10000(h)(2).**

2) Submit Notification of Compliance Status according to §63.10021(k) summarizing the results of your initial compliance demonstration and according to §63.9(h)(2)(ii) within 60 days of completion.

3) Submit 30 Day Advance Cessation Notification that Boiler 3 met the definition of a natural gas-fired EGU for at least 6 months and will no longer comply with the Utility MATS subpart.

6.0 NEW REGULATORY REQUIREMENTS

There are no additional regulatory requirements resulting from this permit modification beyond those addressed herein.

APPENDIX A – DNREC AIR PERMIT APPLICATION FORMS


AQM-1001.doc


AQM-1001V EU3-AOS LUOF.doc


AQM-1001Y.doc

7 DE Admin. Code 1130
Title V State Operating Permit Program

ADMINISTRATIVE INFORMATION

Air Quality Management Section

AQM-1001

ADMINISTRATIVE INFORMATION FOR:	FOR DEPARTMENT USE, ONLY
☐ INITIAL APPLICATION	I.D. NO.:
☐ RENEWAL APPLICATION *(check one)*	PERMIT NO.:
☒ MODIFICATION	DATE: / /

SOURCE INFORMATION

1. SOURCE NAME: City of Dover McKee Run Generating Station		2. DATE FORM COMPLETED: 01/26/2018
3. SOURCE STREET ADDRESS: 880 Buttner Place		
4. CITY: Dover	5. ZIP: 19904	6. COUNTY: KENT
7. PRIMARY STANDARD INDUSTRIAL CLASSIFICATION (*SIC*) CATEGORY: Electric Services		8. PRIMARY *SIC* NO.: 4911
9. SOURCE ENVIRONMENTAL CONTACT PERSON: Mark Gramer		10. CONTACT PERSON'S TELEPHONE NO.: (302) 672-6319

OWNER INFORMATION

11. NAME: City of Dover		
12. ADDRESS: 860 Buttner Place		
13. CITY: Dover	14. STATE: DE	15. ZIP: 19904
16. OWNERS AGENT (*if applicable*):		

OPERATOR INFORMATION

17. NAME: City of Dover		
18. ADDRESS: 860 Buttner Place		
19. CITY: Dover	20. STATE: DE	21. ZIP: 19904

APPLICANT INFORMATION

22. WHO IS THE PERMIT APPLICANT: *(Check One)* ☒ OWNER ☐ OPERATOR	23. ALL CORRESPONDENCE TO: *(Check One)* ☒ OWNER ☐ OPERATOR ☐ SOURCE
24. CONTACT PERSON NAME AND/OR TITLE FOR WRITTEN CORRESPONDENCE: Donna S. Mitchell, CPA City Manager	
25. TECHNICAL CONTACT FOR SUBMITTAL OF APPLICATION: Donna S. Mitchell, C City Manager	26. CONTACT PERSON'S TELEPHONE NO.: (302) 736-7005
27. TOTAL COST OF PLANT: $6,574,575 + Property (*Including property, buildings and air pollution control equipment, original cost basis*) COST OF PROPOSED MODIFICAITONS: $N/A (Modification Applications, Only)	

28. PRESENT STATUS OF EQUIPMENT (Check appropriate box(es) and complete applicable items)
OPERATING PERMIT:

☒ For existing plant, date construction completed (*original facility*) / /1975

☐ Name change pending, effective date / /

CONSTRUCTION PERMIT (*for modifying sources*):

	Equipment to be modified or constructed	Estimated Starting Date	Estimated Completion Date
☐	☐ Basic Equipment	/ /	/ /
	☐ Air Pollution Control Equipment	/ /	/ /
☐	Change of Location Pending	/ /	/ /

29. ARE HAZARDOUS MATERIALS* OR COMPOUNDS OF SUCH MATERIALS ARE EMITTED INTO THE ATMOSPHERE FROM ANY OPERATION AT THIS LOCATION:

YES

*As defined in Section 112(b) of the November 15, 1990 Clean Air Act Amendments.

30. 1990 CLEAN AIR ACT AMENDMENTS, §112(r)

a. The facility is not subject to the requirements of §112(r) of the 1990 Clean Air Act Amendments.

b. The facility has not registered in compliance with the State of Delaware "Regulations for the Management of Extremely Hazardous Substances."

(if a registration has not been filed, a Compliance Schedule is required to be submitted with this Application).

31. 1990 CLEAN AIR ACT AMENDMENTS, Title VI Requirements

a. Does your facility have any air conditioners or refrigeration equipment that uses CFCs, HCFCs or other ozone-depleting substances?

YES

b. Does any air conditioner(s) or any piece(s) of refrigeration equipment contain a refrigerant charge greater than fifty (50) pounds?

NO

(*If the answer is "YES," describe what type of equipment and how may units are at the facility*).

c. Do your facility personnel maintain, service, repair or dispose of any motor vehicle air conditioners (MVACs) or appliances? (*"Appliance" and "MVAC", as defined at 40 CFR, Part 82.152*)

NO

d. Cite and describe which Title VI requirements, if any, are applicable to your facility.
(i.e., 40 CFR, Part 82, Subparts A through G)

40CFR82, Subpart F, Recycling and Emissions Reduction

AQM-1001
Continued

32. Complete the following table, indicating each Emission Unit and each Emission Point ID.
Provide the Pint Description, and indicate which forms and other information are included as part of this application.

Emission Unit	Emission Point ID	Point Description	AQM-1001A	AQM-1001B	AQM-1001C	AQM-1001D	AQM-1001E	AQM-1001F	AQM-1001G	AQM-1001H	AQM-1001J	AQM-1001K	AQM-1001L	AQM-1001M	AQM-1001N	AQM01991V	AQM-1001W	AQM-1001X	AQM-1001Y	AQM-1001Z	AQM-1001AA	AQM-1001BB	AQM-1001CC	Process Flow Diagram	Site Plan: Stack Data and Locations	Emission Calculation Sheets	Stack Test Results	Supplemental/Other (Specify)
EU-1	EP-1	Boiler 3	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
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33. I, the undersigned, hereby certify under penalty of law that I am a Responsible Official and that I have personally examined and am familiar with the information submitted in this document and all of its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is, on knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

By signing this form, I certify that I have not changed, altered, or deleted any portions of this application.

BY: _____ DATE: 8 / 14 / 18

Donna S. Mitchell
Typed or Printed Name of Signatory

City Manager, City of Dover
Title of Signatory

7 DE Admin. Code 1130 Title V State Operating Permit Program APPLICABLE REQUIREMENTS Air Quality Management Section	AQM-1001V

EMISSIONS UNIT #: EU-3

SOURCE NAME: McKee Run Generating Station
EMISSION POINT #: EP-2

1. Provide any restrictions on operation which affect emissions or operations: (e.g., only one unit is operated at a time): 826,944 MMBTU/yr while combusting fuel oil

APPLICABLE REGULATIONS

CONTAMINANT	APPLICABLE REGULATION[1] 2.0	EMISSION STANDARD[1] 2.1	RECORDKEEPING REGULATION[2] 3.0	REQUIREMENT[2] 3.1	REPORTING REGULATION[3] 4.0	REQUIREMENT[3] 4.1
HAPS	40 CFR §63.10000(c)(2)(iv)	N/A	40 CFR §63.10005(e) 40 CFR §63.10021(e)(8)	Maintain records of initial and subsequent tune-ups	40 CFR §63.10005(k) 40 CFR§63.10021(e)(7)	Submit dates to the DNREC and EPA in hard copy and electronically within 60 days of completion
HAPS	40 CFR §63.10032(j)	N/A	40 CFR §63.10032(j)	Maintain records of the type(s) and amount(s) of fuel use in each calendar quarter to document that the boiler combusted oil beneath the capacity factor of 826,944 MMBTU/yr or 8% of its max annual heat input, averaged over the 24-month block contiguous period	§63.10021(e)(8)	if requested by the Administrator

[1]2.0-2.1 Provide any specific emission standard(s) and limitation(s) set by regulation(s) which are applicable to the emissions unit (e.g., Volatile Organic Compound content of coating, not to exceed 3.5 lb/gal)

[2]3.0-3.1 Provide any specific recordkeeping regulation which is applicable to the emissions unit.

[3]4.0-4.1 Provide any specific reporting regulation which is applicable to the emissions unit.

APPLICABLE REQUIREMENTS *(Continued)*				AQM-1001V *(Continued)*
CONTAMINANT	MONITORING REGULATION[4] 5.0	REQUIREMENT[4] 5.1	TESTING REGULATION[5] 6.0	REQUIREMENT[5] 6.1
HAPS	40 CFR§63.10021(e)	Inspect the burner, flame pattern, and combustion controls, and clean or replace any components of the burner or combustion controls; observe and fix the damper operations; evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors; inspect the system controlling the air-to-fuel ratio; optimize combustion to minimize generation of CO and NOX; at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NOX in ppmv, and O2 in volume percent, before and after the tune-up	N/A	N/A
HAPS	40 CFR §63.10032(j)	Comply via Part 75 fuel monitoring requirements AQM-001/00002(Renewal 2), Condition 3 - Table 1, Item 1(b)(4)(vi)	N/A	N/A
			N/A	N/A

7. Does the emissions unit qualify for an exemption from any regulation: NO

If YES, then list both the regulation from which it is exempt and the regulation which allows the exemption, and provide a detailed explanation of why the exemption applies. Include detailed supporting data and calculations. Attach and label as exhibit, or refer to other attachments which address and justify this exemption.

[4]5.0-5.1 Provide any specific monitoring regulation which is applicable to the emissions unit.
[5]6.0-6.1 Provide any specific testing regulation which is applicable to the emissions unit.

7 DE Admin. Code 1130 Title V State Operating Permit Program Air Quality Management Section	AQM-1001Y

COMPLIANCE STATUS

FOR DEPARTMENT USE ONLY
I.D. NO.:
PERMIT NO.:
DATE:

SOURCE INFORMATION		
1. Source Name: McKee Run Generating Station		
2. Source Street Address: 880 Buttner Place		
3. City: Dover	4. Date Form Prepared: 01/26/2018	5. Source I.D. No.: 1000100002 *(if known)*

The Division of Air and Waste Management requires each applicant for a permit to complete status form for each emissions unit regardless of its compliance status. The compliance status of each emissions unit must be stated, and compliance schedule form AQM-1001AA must be completed and submitted for emissions units in noncompliance at the time the permit is issued.

6. EMISSIONS UNITS IN COMPLIANCE
The following emissions units are in compliance with all *Applicable Requirements*, and will continue to comply with such requirements during the permit:

EMISSIONS POINT NO.	EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
EP-1	EU-1	Boiler No. 1
EP-1	EU-2	Boiler No. 2
EP-2	EU-3	Boiler No. 3
EP-3	EU-4	Hot Water Boiler No. 1
EP-3	EU-5	Hot Water Boiler No. 2
EP-4	EU-6	Turbine Floor Cold Solvent Cleaner
EP-5	EU-7	Maintenance Shop Cold Solvent Cleaner
EP-6	EU-8	#2 Fuel Oil Storage Tank No. 1

7. EMISSIONS UNITS IN COMPLIANCE, BUT SUBJECT TO FUTURE COMPLIANCE DATES
The following emissions units, which are currently in compliance with all *Applicable Requirements*, will achieve on a timely basis and maintain, compliance with future compliance dates as they become applicable during the permit term:

EMISSIONS POINT NO.	EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION	FUTURE COMPLIANCE DATE
			/ /
			/ /
			/ /
			/ /
			/ /

COMPLIANCE STATUS *(Continued)*	AQM-1001Y *(Continued)*

8. EMISSIONS UNITS NOT IN COMPLIANCE – COMPLIANCE TO BE ACHIEVED PRIOR TO PERMIT ISSUANCE
The following emissions units are not in compliance with all *Applicable Requirements* at the time of permit application; however, these emissions units will achieve compliance with all *Applicable Requirements* prior to permit issuance, and will continue to comply with such requirements during the permit term:

EMISSIONS POINT NO.	EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION	DATE COMPLIANCE TO BE ACHIEVED
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NOTE: For emissions units not in compliance, complete Form AQM-1001AA.

9. EMISSIONS UNITS NOT IN COMPLIANCE – COMPLIANCE WILL NOT BE ACHIEVED PRIOR TO PERMIT ISSUANCE
The following emissions units are not in compliance with all *Applicable Requirements* at the time of permit issuance. Form AQM-1001AA must be submitted for emissions units not in compliance with all *Applicable Requirements* at the time of permit issuance. Form AQM-1001AA is submitted for the following emissions units:

EMISSIONS POINT NO.	EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION	DATE COMPLIANCE SCHEDULE TO BE ACHIEVED

NOTE: For emissions units not in compliance complete Form AQM-1001AA.